

What Is Claimed Is:

1. A method of forming manganese chloride comprising the step of reacting a manganese metal powder with hydrogen chloride under anhydrous reaction conditions.
2. The method described in claim 1, wherein the manganese metal powder has a mesh size in the range of about 50 to about 400.
3. The method described in claim 1, wherein the reaction conditions comprise a reaction temperature in the range of about 50°C to about 200°C.
4. The method described in claim 1, wherein the reaction conditions comprise a reaction pressure in the range of about zero to about 200 psig.
5. The method described in claim 1, wherein at least some of the hydrogen chloride is dissolved in an ether solvent.
6. The method described in claim 1, wherein at least some of the hydrogen chloride is in the gas phase.
7. The method described in claim 5, wherein the ether solvent comprises dimethyl carbitol.
8. The method described in claim 5, wherein the solvent is selected from the group consisting of ethers, dimethyl ether (DME), butyl ether, amyl ether, di-n-butyl ether, glyme polyethers, diethylene glycol methyl ether (DGME), triethylene glycol dimethyl ether (triglyme), diethylene glycol dimethyl ether (diglyme), 1,2-dimethoxyethane (glyme), Cetaner (a blend of 96% glyme and 4% dimethoxymethane), ethylene glycol mono-tert-butyl ether, ethylene glycol mono-n-butyl ether, carbonates, dimethyl carbonate, diethyl carbonate, diacetates, ethylene glycol acetate, acetals, dimethoxymethane (DMM or

methyl-*al*), 2-ethylhexylacetate, esters of plant oils, esters of animal oils, and methyl soyate.

9. A manganese chloride product of the method described in claim 1.
10. A method of forming manganese chloride comprising the steps of:
  - providing manganese metal powder;
  - providing hydrogen chloride, and
  - reacting the manganese metal powder with the hydrogen chloride under anhydrous reaction conditions.